

**SKYLAB CREW**—These three astronauts have been named by NASA as the prime crew of the first manned Skylab mission. They are, left to right, Joseph P. Kerwin, science pilot; Charles Conrad, Jr., commander; and Paul J. Weitz, pilot. Skylab is a threepart program consisting of one 28-day and two 56-day manned visits spanning an 8-month period. One day prior to the launch of this crew, the unmanned Skylab space station cluster will be launched and placed in Earth orbit.

# ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS



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## Skylab Library Available to Crews

Even in space 270 miles from Earth, an astronaut who borrows a book must sign for it. A silent librarian and a "Keep Quiet" sign will preside over the library in the Skylab space station during its Earth orbit this year.

Since each of the three crew members is scheduled for one hour off-duty every day (besides his sleeping period), space officials polled the astronauts on the kinds of entertainment they would prefer. Reading in the "library" was one of their top preferences.

Skylab's library contains a storage rack holding 36 paperbacks and a kitchen table for reading. The silent librarian is the closed circuit TV that will monitor the astronauts' activities at all times.

To borrow a book a crew member must place a specified marked bookcover on his book in use, and to identify himself as the borrower.

And although the astronauts won't be writing home during their off-duty breaks several options are available.

The dual reading - kitchen

table may also be the site of card games among the three man crew, or "head to head." A deck of cards was a popular item in the poll. But in order to keep them from floating around the room in the weightless environment, the cards will be mounted on small clamps held to the table by magnets.

Since the crews wanted to experiment with weightlessness, three balls for playing catch and a dart board have also been included.

Skylab boasts a stereo sound system as well, complete with pre-recorded cassettes, head phones, and a speaker located in the astronauts' bedroom.

Any speculation on the kind of "spaced out" music the Skylab spacemen will be tapping their feet to?

## T. V. To Feature Skylab Program

Programs featuring Skylab will be shown on two Houston television stations, Sunday May 13, 1973.

At 4:00 p.m., channel 8 (KUHT), Houston's Educational television, will run a special entitled, "Skylab—Rediscovering Earth." This program, produced for Public Broadcast Service by Robert Cozens, will give an overview of Skylab as discussed by JSC Director Christopher Kraft; Astronauts Pete Conrad, Paul Weitz, Joe Kerwin, Karl Henize and William Thornton; and Project Scientist for two Earth Resources Experiments, Dallas

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## Astronauts Receive Photography Briefings

All three Skylab crews were briefed recently by Robert A. Citron, Director of the Smithsonian Institution's Center for Short Lived Phenomena at Cambridge, Massachusetts.

The Smithsonian is under contract to NASA to transmit daily reports of major events on the surface of the Earth.

The Center receives rapid communications from a network of 3,000 scientists in 144 countries throughout the world.

The correspondents send messages by telephone, teletype, and fast mail for relay to those interested in the study of transient events.

The Center receives reports on volcanic eruptions, earthquakes, floods, animal migration, changes in vegetation, oil spills, and other short-lived phenomena.

During the three Skylab missions, the Center will deliver daily reports to the Mission Con-

rol scientists at JSC. These reports will be used in advising members of the Skylab crew as to suitable targets for hand-held photography. The photographs will complement those provided by equipment mounted in the Earth Resources Experiment Package bay.

In addition, information about events may prove useful in planning or modifying earth resources experiment passes, which require a major reorientation of the spacecraft.

The Center Director said that Skylab will offer greatly improved opportunities for the observation of several events in parts of the world not readily accessible to aircraft equipped with remote sensors.

The cameras carried on the spacecraft will offer higher resolution photographs than have ever been obtained from the

(Continued on page 4)



**EXCEPTIONAL SERVICES AWARD**—In the above picture, NASA Director James C. Fletcher pins an Exceptional Service Medal on Dolores O'Hara; Miss O'Hara is a Registered Nurse in the Crew Health Section at JSC and is the first woman at the Center to receive the NASA Exceptional Service Medal.

## Rescue In Space Now Feasible

When Skylab is orbited next week, the first limited capability to rescue astronauts in space will become a reality.

In the Mercury and Gemini programs, the spacecraft could not be used for rescue because of their restricted size and life-support capability and there was no way to pick up the two astronauts if they were stranded on the moon.

With Skylab, the orbital workshop offers long-duration life support in Earth orbit and a practical rescue capability is feasible.

In each of three Skylab visits, the astronauts will be flown to the space station in a modified Apollo command and service module (CSM).

The CSM is powered down after docking and Skylab activation and remains available for

life support and crew return in the event of an orbital Workshop (OWS) failure.

Therefore, the only failures to be considered for rescue requirements are loss of CSM return capability or the loss of accessibility to the CSM.

In this event, a second CSM would be launched carrying only two men with room for the three astronauts to be picked up in orbit and the rescue CSM would then return with a crew of five.

The three Skylab manned launches are about 90 days apart. Therefore after each of the first two manned launches, the next vehicle in normal preparation for launch would be used for rescue if needed.

After the third and final manned launch, the Skylab back-

(Continued on Page 3)



**SKYLAB TRAINING**—Astronaut Paul J. Weitz, prime crew pilot of Skylab I, is suited in Building 5 at JSC during pre-launch training activity. He is assisted by Astronaut Charles Conrad.



CONRAD AND FAMILY—Astronaut Charles Conrad, Jr., relaxes with his wife Jane, and their four sons. Peter (on arm of chair at left), 18; Thomas (on arm of chair at right), 16; Andrew (front left), 14; and Christopher (front right), 12, at their home in Timber Cove, near JSC. Conrad is the commander of Skylab I.



KERWIN AND FAMILY—Scientist-Astronaut Joseph P. Kerwin poses with his wife, Shirley, and their three daughters, Joanna (left), 7; Sharon (center), 9; and Kristina (right), 5, at their home in Nassau Bay. Kerwin is the science pilot of the prime crew of the first manned Skylab mission.



WEITZ AND FAMILY—Astronaut Paul J. Weitz sits with his wife, Suzanne in their home in Nassau Bay. Standing are their children Cynthia 11, and Matthew, 14. Weitz is the prime crew pilot of Skylab I.

## OWS to Be Spacious

When three Skylab astronauts move into the Orbital Workshop, they'll find themselves in the largest—and most comfortable—spacecraft yet put into Earth orbit by NASA.

The Workshop's interior has been designed and outfitted with as many necessities, conveniences, and safety devices as engineers and designers could think of to make the crewmen as comfortable and as safe as possible for flights lasting 56 days.

The Workshop itself is huge, a converted Saturn V launch vehicle's third stage that has been changed into living and work quarters for three-man astronaut crews.

It boasts a barn-like 283 cubic meters (10,000 cubic feet) of space, divided into two "floors," where many kinds of biological, scientific and technical experiments will be conducted.

The crew's quarters cover an area 6.5 meters (21.5 feet) in diameter and 2.1 meters (seven feet) high. Solid partitions divide the quarters into a sleep compartment, a wardroom, a waste management compartment, and a work experiment area.

The wardroom and the waste management compartment will have solid, airtight entry doors to prevent food particles and

odors from escaping into the rest of the Workshop.

Light fixtures mounted to a grid-pattern ceiling will provide illumination for crewmen, and specially-placed handrails on the walls and ceiling will aid movement as they float in the weightless environment.

The astronauts will breathe a mixture of oxygen and nitrogen, pressurized to 17.34 newtons per square meter (five pounds per square inch).

A thermal control and ventilation system will give the men a habitable environment, with temperatures ranging from 15.5 to 32.2 degrees Celsius (60-90 degrees Fahrenheit). The nominal temperature will be 70 degrees Fahrenheit. Fans will circulate the artificial atmosphere to keep temperatures constant.

The crewmen will not be completely cut off from their co-workers on Earth. Voice communications, similar to that used during Gemini and Apollo missions, will be used, and one-way television communication will be possible at times from the workshop to ground controllers.

The crew will be able to see the Earth they're circling through a large observation window in the wardroom.

## Lockheed Selects Essay Winners

Luna Kay Lewis, Spring Branch High School, has been awarded the \$50 first prize in the second annual High School Essay Contest sponsored by the Lockheed-Houston Chapter of the National Management Association.

Patty Hoover, Clear Lake High School, received the second place prize of \$40, and the \$30 third place award went to Molly Welborn, J. Frank Dobie High School. The cash awards and certificates were presented to the winners at the month-

ly meeting of the NMA-LHC.

Chosen from 112 entries and representing 11 schools in 7 local area school districts, the winning essays were based on the topic, "Man, his environment and Space" and were selected for originality, composition, and clarity of expression.

This year's contest, one of several student oriented activities sponsored by Lockheed's Management Association, was coordinated by the Community Relations Division, Dr. Zafar Taqvi, Manager.

## Group Presents Heart Disease Program

The Houston Chapter of the Aerospace and Electronic Systems Group will present a program entitled "Early Detection of Coronary Heart Disease in Aerospace Personnel," May 22, 1973 at JSC. The program will be held in the Center's Building 7A Auditorium, room 141 at 7:30 p.m.

Dr. C. A. Owen, Physician-in-charge of the Cardiopulmonary Laboratory, Kelsey-Seybold Clinic, JSC, and Elizabeth Mealy, the clinic's Exercise Physiologist, will present and demonstrate the technique for ergometric evaluation of human cardiopulmonary systems currently in use at JSC.

## ROUNDUP

NASA LYNDON B JOHNSON SPACE CENTER

HOUSTON TEXAS



The **Roundup** is an official publication of the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for JSC employees.

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Photographer: A. "Pat" Patnesky

# Roundup Swap-Shop

Swap Shop advertising is available to JSC and on-site contractor personnel. Articles or services must be offered as advertised without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

### MISCELLANEOUS

VW luggage rack, \$5, bathinette, \$2, 1970 words adding machine (uses paper tape) nds adjustment., \$30, Casserly 479-6433.  
 Canon TL, SLR, 35mm, auto-soligar, 135 mm auto soligar, electr flash, accessories, xltm cndn, \$150, 488-3966.  
 Jain Piper Cub, (J-3: Flying Club 1-6 interest available, Patterson, 554-2792.  
 Argus 500 slide projector, model 58, w/ f 3.3 lens, spare bulb and 38 magazine, 36 slide capacity, \$45, Lattier, 534-2755.  
 VW engine parts, crankshaft, flywheel, clutch, heads, manifold, carburetor, generator, many other parts, Mark, 488-5037.  
 Skylane membership, Collier Field, \$25 mo modest wet rates, day, 522-8537 evening, 471-1079.  
 Sewing machine, newly refinished cabinet, \$45, electric guitar and amplifier, cost \$150, now \$45, Lynn, 921-2793.

### HOUSEHOLD ARTICLES

21" RCA color TV replacement picture still in warranty, \$95, Bullock, 488-1042.  
 1 set walnut furnished formica type coffee table and 2 step end tables, xltm cndn, \$20, T. Ohnesorge, 534-3602.  
 Matching Italian Provincial lace seats, gold silk, upholstery, li new, both for \$275, 488-0964.  
 Frostfree Hotpoint 13 cubic ft refrigerator, xltm cndn, may be connected and operating, 479-2190.  
 Heathkit AR 14 stereo receiver, Solid State, \$55, Garrard turntable, AT60, \$45, both w/ walnut cabinets, 488-0265.  
 Daybed, gold cover, cushions, xltm cndn, ideal for den or sunroom, \$15, 337-2153.

### VEHICLES

67 Ford Country Sedan, all power, a c, gd cndn, 3 seat, \$595, Willis, 944-3647.  
 72 Javelin 360 CID, auto trans, ps, ac, vinyl roof, stripes, radial tires, \$2895 or offer, 334-4473, Elster.  
 Honda, 70, trail 70, gd cndn, helmet, carrying racks incl, \$185, 479-4520.  
 61 Austin-Healy 3000 Sports Roadster, gd cndn, \$600, Elrod, GR-2-5084.  
 Pinto, 73 3-dr, red, 18,000 mi, radio, air, nw steel tires, stick shift, 1600 cc, \$1,900, Jim, 488-1493.  
 20" girls bike, \$5, 20" boys bike w/ sm front wheel, \$15, Smith, 488-3238.  
 For rent, Cessna 205, 6 seats, IFR equipped, \$25 hr wet, block time less, based at Spaceland, Malone, 332-1367.  
 69 Pontiac 25 sta wagon, Exec Safri, pwr, air, full trailer package, \$1700, 474-2447 or 554-6071 aft 6 pm.  
 71 Yellowstone trailer, 27', fully equipped air, 2 dr refrig, xltm cndn, \$4,800, Green 331-3001 or x5111.  
 Sears 5-speed bike, 24", gd cndn, \$195, Rose, 334-3461.  
 Honda 305 chopper, 10" Overstock, raked, rectangular lights, sporrster tank, custom seat, TT pipes, much chrome, excl cndn, \$495, 488-5037.  
 Honda SL-70, 8 mos old, \$250, 482-7858.  
 69 Fiat 3pt Cpe, gd radials, runs sweet, needs starter and minor mechanical work, \$1200 fixed, \$1050 as is, Ashford, 528-0745 or 483-2886.  
 70 Chev 1 1/2 ton Pickup, V8, std, swb w/ Morrison tool boxes, H. D. Springs w/ orw a camper cover, runs well, 481-3590.  
 68 Dodge Monaco, 4-dr Sedan, ac, ps, gd tires, clean, \$750, W. C. Fischer, 483-3821 or 334-4120.

65 Plymouth 4-dr Fury, air, radio, std, \$350 or best offer, 944-3795.  
 Credit Union repossessions, 70 and 71 Toyota; 71 VW Beetle; 71 Ford Ranger Pickup, may be seen in parking lot opposite JSC fire station from 11 a.m. to 1 p.m., May 14-17, bids close May 17 at 4:30 pm.

### PROPERTY & RENTALS

5 bedrm home in Arlington heights by owner, 2300 sq ft plus boat and camper storage, near schools and shopping centers, 921-0489.  
 Rent, furnished beach house, Crystal Beach, Belvoir 100 yds to Beach, sleeps 19, elec stove, refrig, furnish own linens, rent day or wk, 333-4647 or 684-3150.  
 League city, near high school, tennis courts, ball fields, 3-2-2, ovr 1500 sq ft, gd cndn, under \$23,000, 554-2645.  
 Jamaica beach, wkly rental, modern, comfortable, immaculate, cntr. air, electric, private dock, Harvey, 621-5311.  
 Rent, private home available for 4 or 5 wks anytime between June to August 15, 1973, incl use of private swim club pools, 333-4773.  
 Cottage, stove, refrigerator, all bills paid, couples, and or single only, no pets, a c and heat, shown by appointment \$110 mo, 649-5812.  
 Townhouse, 2 br, 1 1/2 bath, drapes, carpets, carport, treplace, trees, furnished or unfurnished, Hamner, 337-2153.  
 Nassau Bay, Spanish, 4-2 1/2-2 2500 sq ft, wooded lot, screened back patio, 7 yrs old, \$49,500, 488-3353 days, 333-2880 evenings and wkends.

### PETS

Registered Brozoi puppies and young adults Russian Wolf Hounds, Registered quarterhorses, Young, 1-925-3312.  
 Free to ad home, neutered male cat, gray and white, has shots, Ward, 488-0715.  
 Beagles, AKC gd blood lines, 6 mos, shots, beautiful dogs, Willis, 944-3647.  
 AKC highly pedigreed Lhasa Apso, sacrifice to ad home, loyal, devoted, xltm watchdog, resembles sm sheepdog, 488-0192 or 479-2190.  
 Koshka had kittens, 3 Persian and 1 Siamese, reasonable offer such as gd home, Thornton, 482-7222.

### WANTED

Small 6 cyl car w/ air and preferably auto, \$500-\$600, Bullock, 488-1042.  
 BMW motorcycle, R60 or R75 in xltm cndn, w/ windshield, leg fairings helmet carrier, Hooper, 488-4120.  
 Class III trailer hitch for 64 Chev Sedan or 69 Fairlane wagon, Donohoe, 448-1432.  
**BOATS**  
 Gulf coast 22 fiberglass fixed keel sailboat, sleeps 4, loaded w/ xtras, immaculate cndn, 3hp Johnson OB, \$3500, Lang, 488-4218.  
 Ski boat, 14' Glastron w/ 40 hp Johnson motor, Sportsman tilt trailer, many xtras, incl ski equipment, canopy, \$1640, 332-2297 aft 6 p.m.  
 512' surfboard, nw paint and glass on sides and top, red and white, single adjustable, skag, \$35, 333-3291.  
 Sailboat, Coronado 25, 6 hp outboard, compass, bile pump, ac, etc, xtra clean, \$6250, Ricks, 333-2378.  
 12' Jon boat, 10 hp Evinrude motor, paddles, life preserver and cushions, gas tank, \$250, for all, 334-1895.

# Apollo Program Awards Presented

In recognition of their contributions to the Apollo 17 mission and to the success of the Apollo Program, many individuals and groups recently received achievement awards.

Receiving the NASA Distinguished Service Medals were, George W. S. Abbey, Aleck C. Bond, Anthony J. Calio, Eugene A. Cernan, Aaron Cohen, Ronald E. Evans, Richard S. Johnston, Joseph N. Kotanchik (posthumously), Owen G. Morris, Harrison H. Schmitt and Howard W. Tindall, Jr.

Recipients of the NASA Exceptional Scientific Achievement Medals were Michael B. Duke, Robert Fleischer, John W. Freeman, Jr., John H. Hoffman, E. Dale Jackson, Francis S. Johnson, Robert L. Kovach, Harold Masursky.

William R. Muchlberger, James K. Mitchell, P. Buford Price, Eric C. Silverberg, Conway W. Snyder, Harold C. Urey and Joel S. Watkins.

Those persons receiving NASA Exceptional Service Medals were Peter J. Armitage, David A. Ballard, James W. Bildeau, Jerry C. Bostick, William

C. Bradford, Richard A. Colonna, James V. Correale, Jerry W. Craig, Phillip M. Deans, Richard B. Ferguson, Thomas F. Gibson, Jr., Phillip C. Glynn, David H. Greenshields, Dean F. Grimm, Charles R. Haines, Charles S. Harlan, John W. Holland, Jr., Morris V. Jenkins, Robert L. Johnston.

Also Jack A. Jones, William R. Kelly, John W. King, Richard H. Kohrs, Charles K. La Pinta, Thomas R. Loe, James A. Miller, James S. Moore, Dolores B. O'Hara, William W. Petynia, Henry O. Pohl, James M. Satterfield, Phillip C. Shaffer, Donald E. Stullken, Rob R. Tillett, Richard W. Underwood, Donald C. Wade, Lawrence G. Williams, Carroll H. Wooding and John G. Zarcaro.

NASA Public Service Awards went to Charles W. Abbitt, John J. Bednaryk, John M. Buxton and John L. Norton.

Recipients of Group Achievement Awards were a Branch of Surface Planetary Exploration—USGS, JSC Lunar Landing Team, Lunar Landing Training Vehicle Support Team, Lunar Science Team and the Public Affairs Office.

Several non-NASA awards were also presented. The Presidential Management Improvement Certificate went to Jeffrey L. Warner. Receiving the Geological Society of America Certificate for Exceptional Service to the Science of Geology were the Apollo 17 Astronauts, Cern-

an, Evans and Schmitt. Astronaut Schmitt also received the National Oceanic and Atmospheric Administration Public Service Award.

## JIMMY WARREN MEMORIAL BOWLING LEAGUE

May 3, 1973

Team	Standings	W	L
Hexes		80	40
Jokers		73	51
Spoilers		70	54
Pin Pounders		70	54
Ascenders		69	55
Strikeouts		64 1/2	59 1/2
Clowns		64 1/2	59 1/2
Ball Busters		64	60
Chokers		60 1/2	63 1/2
Fabricators		57 1/2	66 1/2
Alley Oops		53 1/2	70 1/2
Hertz		50 1/2	73 1/2
Team No. 9		46	78
Mixers		45	79

## INDIVIDUAL SCRATCH HIGHS

Games	Name	Set
259	Henry Kaupp	644
256	Ron Durkee	641
225	Dan Kennedy	634
236	Dan Kennedy	633
246	Ron Durkee	628
247	Don Gross	626
243	Dwayne Forsythe	619
231	Jim Pavlosky	605
247	Gail Blalock	602
212	T. Bruce	599
243	Frank Morgan	—
238	Paul Cooper	—
233	Pete Petersen	—
233	Cecil Dorsey	—
231	Bill Moon	—

## Rescue in Space

(Continued From Page 1)  
 up vehicle would be made ready for possible use as a rescue spacecraft.

Just how long the Skylab astronauts would have to wait for rescue depends on the point in the mission when the emergency develops. The wait in the well-supplied Orbiting Workshop could vary from 10 to 48 days.

If, for instance, the need for rescue arose on the first day of Skylab's occupancy or reoccupancy, present work schedules indicate that it would take 48 days for the launch crews to ready the rescue launch vehicle and spacecraft.

This includes 22 days which would be required to refurbish the launch tower following the previous launch. During this period the rescue kit would be installed in the CSM, a task which takes about 8 hours, and the entire vehicle then prepared for stacking.

After being moved to the launch pad for final checkout and servicing, the countdown which requires about a week, would begin.

The later into a mission the need for rescue might arise, the sooner the vehicle would be ready for launch. The launch response time is reduced to 28 days and 10 days at the end of the first and third missions, respectively.

Providing rescue modes for all conceivable emergency situations would require instantaneous response—a capability not feasible with present space vehi-

## G. E. To Study Earth Resources For Shuttle Era

A contract to study the entire earth resources system from the acquisition of data to its eventual application by city planners, conservationists, pollution control officials, oceanographers, farmers, and countless other users has been awarded to General Electric's Valley Forge Space Center, Philadelphia, Pennsylvania.

During a year of study, analysts from G. E. will establish detailed guidelines to assist the Earth Resources Program Office at JSC in planning projects to be instituted at the end of the decade. These guidelines will include unique contributions to be made by the Space Shuttle in surveying the earth's resources.

The study will focus on hardware and procedures to be developed during the coming years for use from 1978 to 1982.

General Electric will provide an analysis of the best use of aircraft, unmanned satellites, and the Space Shuttle, in performing a variety of earth observation projects. Such detailed investigation of alternatives will be of considerable use in developing a balanced program for survey-

ing the earth's resources at the lowest possible cost.

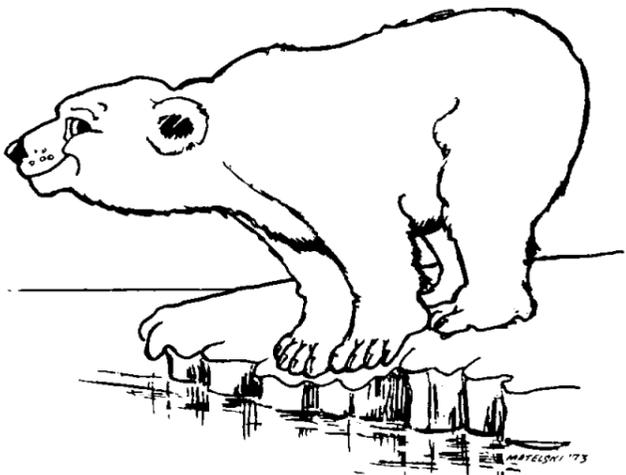
Areas to be considered by General Electric researchers during the coming year include remote sensing instrumentation, aircraft, unmanned spacecraft, manned modules, Shuttle experiment pallets, data processing requirements, data analysis techniques, data handling systems, and the active utilization of information acquired by the appropriate user agencies.

By preparing such a study several years in advance, NASA planners can assure that the required equipment will be developed and tested in time for use at the end of the decade, and that the data provided can be handled quickly and converted into useful form at the lowest possible cost.

Earth resources projects are expected to be among the most valuable applications of the Space Shuttle, which will launch automated satellites as well as carrying scientists and sensing instruments for up to 30 days in orbit.

The cost-plus-fixed-fee contract with General Electric calls for total expenditure of \$234,788.

the BEAR FACT is...



JSC NEEDS YOUR SUGGESTION!!!

Mail Suggestion Form 624 to: AH5/AWARDS OFFICE

# Small Business Week Begins May 13

President Nixon recently designated the week beginning May 13, 1973 as "Small Business Week." Below is the proclamation which he signed.

H. T. "Chris" Christman, Chief, Industry Affairs and Small Business Office at JSC stated, "The Center's Small Business Office schedules appointments for visiting executives or representatives in areas of mutual interest to Center personnel.

"All small businesses interest-

ed in providing equipment, supplies, and services, are included on the Center's mechanized Bidders and Commodity Source List in the areas for which they indicate a preference to participate."

JSC's Small Business Office is located outside the Center's gates in Building 100, as a convenience for potential bidders. No appointments or badges are required to examine bid boards or to request bids or proposals.



## Small Business Week, 1973

By the President of the United States of America

### A Proclamation

In no facet of our national life is the American genius for independence, innovation and self-improvement better displayed than in the small business community.

The instinct to create, sustain and expand an independent enterprise is as old as America herself—an impulse that brought the earliest settlers to our shores and motivated generation after generation of our citizens in their onward, upward march. Nowhere is it more clearly evident today than among our Nation's 8 million small businesses.

In the past year alone, more than 70 thousand new companies were started. Nineteen out of every twenty firms are considered small business, and they provide approximately 35 million jobs, and contribute more than \$420 billion to the gross national product.

They also provide a ladder of opportunity to hard working, ambitious Americans of all races and creeds—the chance to harness individual initiative and ability to the mighty potentials of the free enterprise system. As long as America remains true to her heritage, the small businessman will continue as a mainstay of our economy and our society.

NOW, THEREFORE, I, RICHARD NIXON, President of the United States of America, do hereby designate the week beginning May 13, 1973, as Small Business Week. I ask all Americans to share with me during this week a deep pride in the many accomplishments of our Nation's small businessmen and women, and in the invaluable contribution they have made to our free way of life.

IN WITNESS WHEREOF, I have hereunto set my hand this 12th day of March, in the year of our Lord nineteen hundred seventy-three, and of the Independence of the United States of America the one hundred ninety-seventh.

*Richard Nixon*

## "Claybusters" Give Awards to Skeet League Winners

On Tuesday, May 8, a 10-week skeet league was concluded with awards presented to the top three teams.

Results of the six-team competition were as follows: First place, Team No. 2: Bill Chandler (Captain), Joe Fries, Bill Simon, Warren Brasher and Bernie Rosenbaum; Second place, Team No. 4: Frank Grills, Sam Hildreth, Tom Wise, Gerald Anderson and Tom Sparks; Third place, Team No. 3: Welby Redwine, Jerry Suddath, Ken Suit, Rudy Saldana and Chauncy Park.

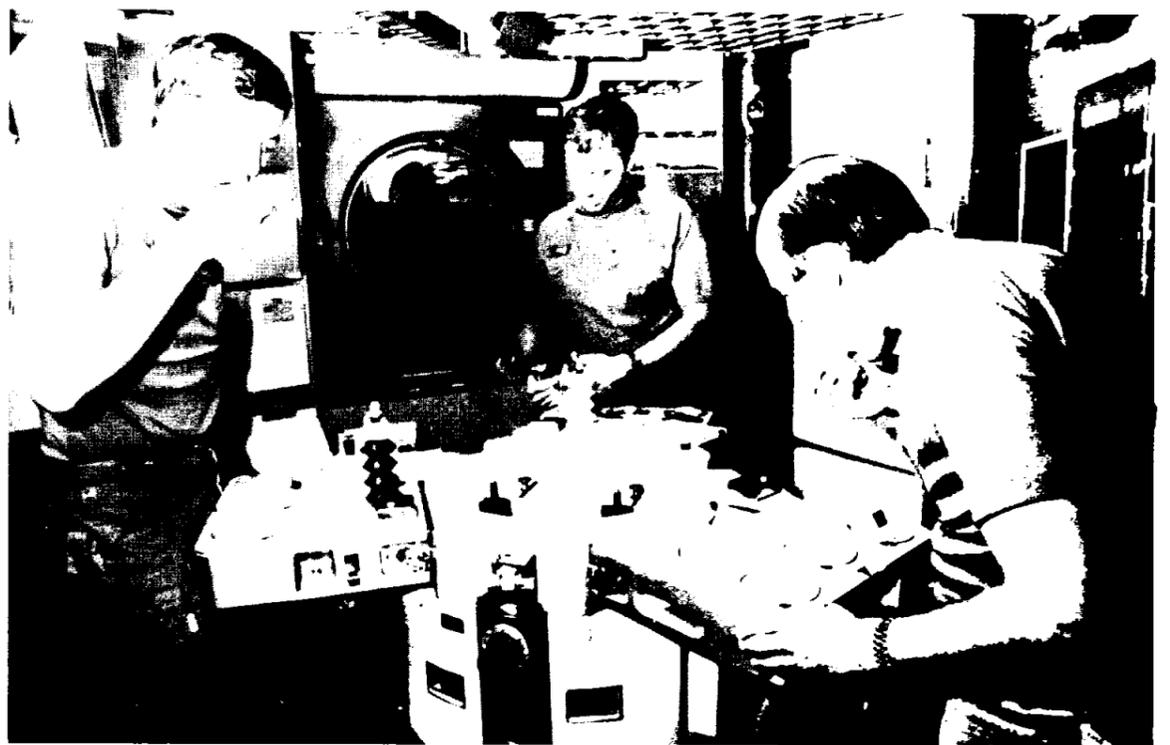
Bill Chandler won the Highest Average Award (23.2). The

Most Improved Shooter award went to Tom Sparks; Bill Chandler and Welby Redwine tied for the Most Straights title.

Anyone interested in joining the new league, which begins May 15, should contact W. E. Simon at x4771.

League members need not be JSC or contractor employees. The new league will run about 7 weeks and will be held at the Winchester Public Shooting Center in Pasadena.

League cost is a \$6.00 initial fee and \$3.20 per week for targets (2 rounds or 50 shots.) Each shooter supplies his own shells.



SKYLAB TRAINING—The prime crew of Skylab I dine on specially prepared Skylab space food in the wardroom of the crew quarters of the Skylab Orbital Workshop (OWS) trainer during Skylab training at JSC. The meals on Skylab will be more palatable than those of previous manned programs, due primarily to advancements in technology which allow inclusion of frozen and canned foods. The more than 80 food items provided in Skylab have been taste tested by the crew members. At meal-times during actual flight conditions in the zero gravity of space the crewmen will use thigh and foot restraints to "anchor" them at the wardroom table.

## Chrysler Gets Contract

JSC recently awarded a \$1,947,000 contract to the Chrysler Corporation to distribute and document wind tunnel data in connection with development of the Space Shuttle.

The cost-plus-fixed-fee contract will run for three years from May 1, 1973.

The space agency noted . . . "that there will be large quantities of wind tunnel data generated in support of . . . Space Shuttle design and development," and "data management will allow the aerodynamicist to have ready access (to data) . . . for analysis."

Wind tunnel test data will be documented in hard copy reports and magnetic tapes.

Technically called Space Shuttle Aerothermodynamic Data Documentation, the task has been tagged with the acronym DATA MAN—for management system.

The work will be done at the Michoud Assembly Facility near New Orleans.

## ATTENTION

The NASA/JSC Traveler's trip to the Cape to view Skylab Liftoff has been cancelled due to the lack of reservations.

## T.V. Programs

(Continued From Page 1) Evans.

"Skylab—Rediscovering Earth presents philosophical views of the mission rather than hardware and experimental concerns," Robert Cozens stated.

Also, channel 2 (KPRC), will run a news conference at 10:30 p.m., May 13 featuring Dr. Kraft with a discussion on Skylab.

## Photography Briefings (Continued From Page 1)

Earth Resources Technology Satellite (ERTS), Citron added.

The regularity of Skylab passes, which will permit observations to be repeated as often as every five days, is also a special advantage, Citron told the crews. He noted that the photography would not be encouraged when it might interfere with more essential experiments or duties.

During the five months of Skylab crew activities, Citron said that the crews might expect a total of about 10 major volcanic eruptions, 5 or more major cyclonic storms and 5 earthquakes large enough to cause visible changes in topography.

The crews might also see as many as 10 floods from orbit. Citron said that the first Skylab team might have an opportunity to survey and photograph peak flooding in some of the main tributaries of the Mississippi.

Citron hopes that systematic photography of the flooded area from space will provide new information about the rate at which water recedes and the total area inundated by the flood.

Serious oil spills, already detected in photographs from ERTS, may also be photographed by the Skylab crews from the window of their laboratory in space.

Citron said that the Center would also attempt to send research teams into areas where the Skylab scientists observed unusual changes, using local investigators who could be mobilized within 24 to 48 hours.

The crew of Skylab's first manned mission received their briefing via closed circuit television during their second day of quarantine.

## Employee Elected To Office

Helen Ragsdale, Chief Telephone Operator at JSC was elected State Vice President of PBX Clubs International at the 20th Annual State Convention at Midland, Texas, April 28, 1973.

The state organization is comprised of 18 clubs with 423 members.



NASA GEOLOGIST—Dr. Uel Clanton, NASA geologist pictured above, along with Dr. Grant Heiken, recently conducted seminars at St. Lawrence University in Canton, New York on scanning electron microscopy, geological training of the astronauts and work on lunar samples brought back from the Apollo missions.